

MAY/2

Work Order ID 114488

March-07-14 3:34:29 PM

Blue

Item ID: D3407-043

Revision ID:

Item Name: Tow Ring

Start Date: 07/03/2014 Start Qty: 12.00

Required Date: 28/03/2014 Req'd Qty: 12.00

Reference:

Approvals: Process Plan: MT Date: 14-03-10
 QC: _____ Date: _____

Accept

~~*12*~~~~*12*~~***114488******N900040100***

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr	SPC (Y/N):	Date:
----------	--------------	------------	-------

D3407	Rev E	0.00	0.00
-------	-------	------	------

100

100

Large Fab

Large Fab

Memo

Weld D3407-3-5 using welding rod TIG174 as per Dwg D3407 & QSI
004A/R TIG174 ROD Batch: 1102576

110

110

QC

Quality Control

QC9- Inspect visual per QSI004- Fusion Welds

0.00

0.00

12 20 14-05-02

120

120

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

12 14-05-05 DAS 9 9-89

Memo

12 14-05-05 DAS 9 9-89

DQA:

Date:



WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order ID 114488

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114488

Page 2

Item ID: D3407-043

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Item Name: Tow Ring

Start Date: 07/03/2014 Start Qty: 12.00 *12*

Required Date: 28/03/2014 Req'd Qty: 12.00 *12*

Reference:

Approvals: Process Plan: _____ Date: _____

QC: _____ Date: _____

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run

Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

135

135

SprayPaint

Spray Painting

Operation
Description

Spray Painting per QSI005 4.2

Prime 128934
Memo

DEFLEET BLUE
B 128671

DEFLEET CLEAR
B 125385

PRIME:
Start Time: 9:00
Finish Time: 11:30

PAINT:
Start Time: 3:00
Finish Time: 5:30

145

QC14- Inspect Spray Paint

145

QC

Quality Control

Memo

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

12 _____ CL 14-05-06

AS
27
28
MIS 8

10 _____

DQA: _____ Date: _____



WORK ORDER NON-COMPLIANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
				Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced			
Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up			
Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure			
Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld			
Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled			
Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>				
Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>				
Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Other	<input type="checkbox"/>				
Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>		<input type="checkbox"/>				
Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>		<input type="checkbox"/>				
We/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>		<input type="checkbox"/>				

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Item ID: D3407-043

Revision ID:

Item Name: Tow Ring

Start Date: 07/03/2014 Start Qty: 12.00

12

Required Date: 28/03/2014 Req'd Qty: 12.00

12

Reference:

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center ID
150Operation
Description
Identify as per dwg & Stock Location: ST 444Set Up/
Run Hours
0.00Tool ID Tool # Plan
Code Accept Reject
Qty Qty Number Insp.
Stamp***150***

Packaging

Packaging

Memo

0.00

12X 145-8
DAS
26
9-89

160

QC21- Final Inspection - Work Order Release

0.00

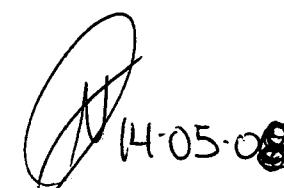
160

QC

Quality Control

Memo

0.00

MLJ 14-05-08
14-05-08

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									
FAULT CATEGORY									
Landing Gear	General								
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>				
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>				
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>				
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>				
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>				
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>				
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>						
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>						
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						

Picklist Print

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Page 1

Work Order ID: 114488

114488

Parent Item: D3407-043

D3407-043

Parent Item Name: Tow Ring

Start Date: 07/03/2014

Required Date: 28/03/2014

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A05.10.14 New issue KJ/EC
IPP Rev:B 08-09-09 revE as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3407-3		Manufactured	No		100		Each	52.0000	1	12			
---------	--	--------------	----	--	-----	--	------	---------	---	----	--	--	--

D3407-3
Stem

B103663 x 12

Location	Loc Qty	Loc Code
WA001	52	
103663	22	
103670	10	
107685	20	

** (12) 1 32 14.05.02

D3407-5		Manufactured	No		100		Each	0.0000	1	12			
---------	--	--------------	----	--	-----	--	------	--------	---	----	--	--	--

D3407-5
Ring

B#1804 x 12

105

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

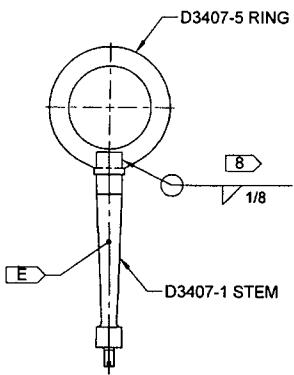
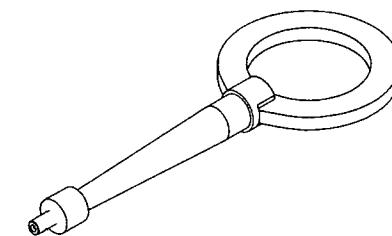
Date:

Work Order update only

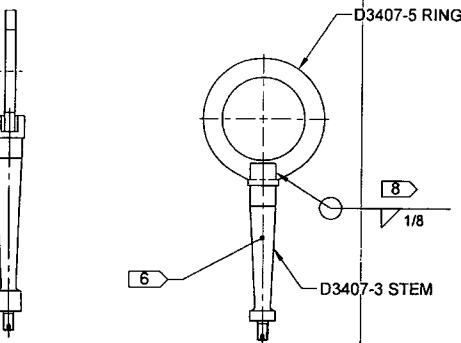
Work Order Update Only				Disposition		Against Department/Process						
Work Order:				Rework		Skid-tube		Crosstube		Water Jet		Engineering
Part No.				Scrap		Machining		Small Fab		Prod. Eng. Coor.		Quality
NCR No.				Use-as-is		Thermoforming		Finishing		Rec/Store/Packaging		Other
				Suspected Unapproved		Large Fab		Composite		Supplier		
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Design												
Doc/Data												
Equip/Tooling												
Handling/Pre												
Material												
Operator												
Offset/Setup												
Process												
Supplier												
Training												
Transport												
Unapproved												
Fault Category												
Landing Gear				General								
Bending		Bend		Folio/Program		Outside Dimensions		Pressure/Forced				
Centre Not Concentric		BOM/Route		Grain		Over/Under tolerance		Set-up				
Cracks		Broken/Damage/Defect		Hardware		Part Incorrect		Temperature/Cure				
Crimp/Kink/Ripple/Wave		Burrs		Inspection Incomplete/Unqualified		Part Lost/Missing		Weld				
Cuffs		Contamination		Instructions Incomplete/Unclear		Part Moved		Wrong Stock Pulled				
Crushing		Countersink		Misaligned/off center		Positioned Wrong						
Heat Treat		Cut Too Short		Mislabeled		Power Loss/Surge						
Inspection Strip in Tube		Drawing		Misread				Other				
Marks/Chatter		Drill Holes		Off-set								
Turning Sequence		Finish		Out of Calibration								
Wave/Twist in Tube		Fit/Function		Out of Sequence								

8 7 6 5 4 3 2 1

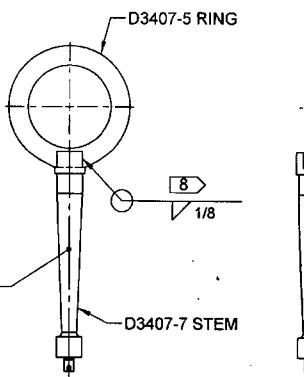
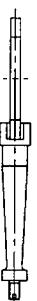
QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
X			D3407-043	TOW RING
X			D3407-045	TOW RING
1			D3407-1	STEM
1	1	1	D3407-3	STEM
1	1	1	D3407-5	RING
	1		D3407-7	STEM



D3407-041 TOW RING



D3407-043 TOW RING



D3407-045 TOW RING

RELEASED
08-08-2011

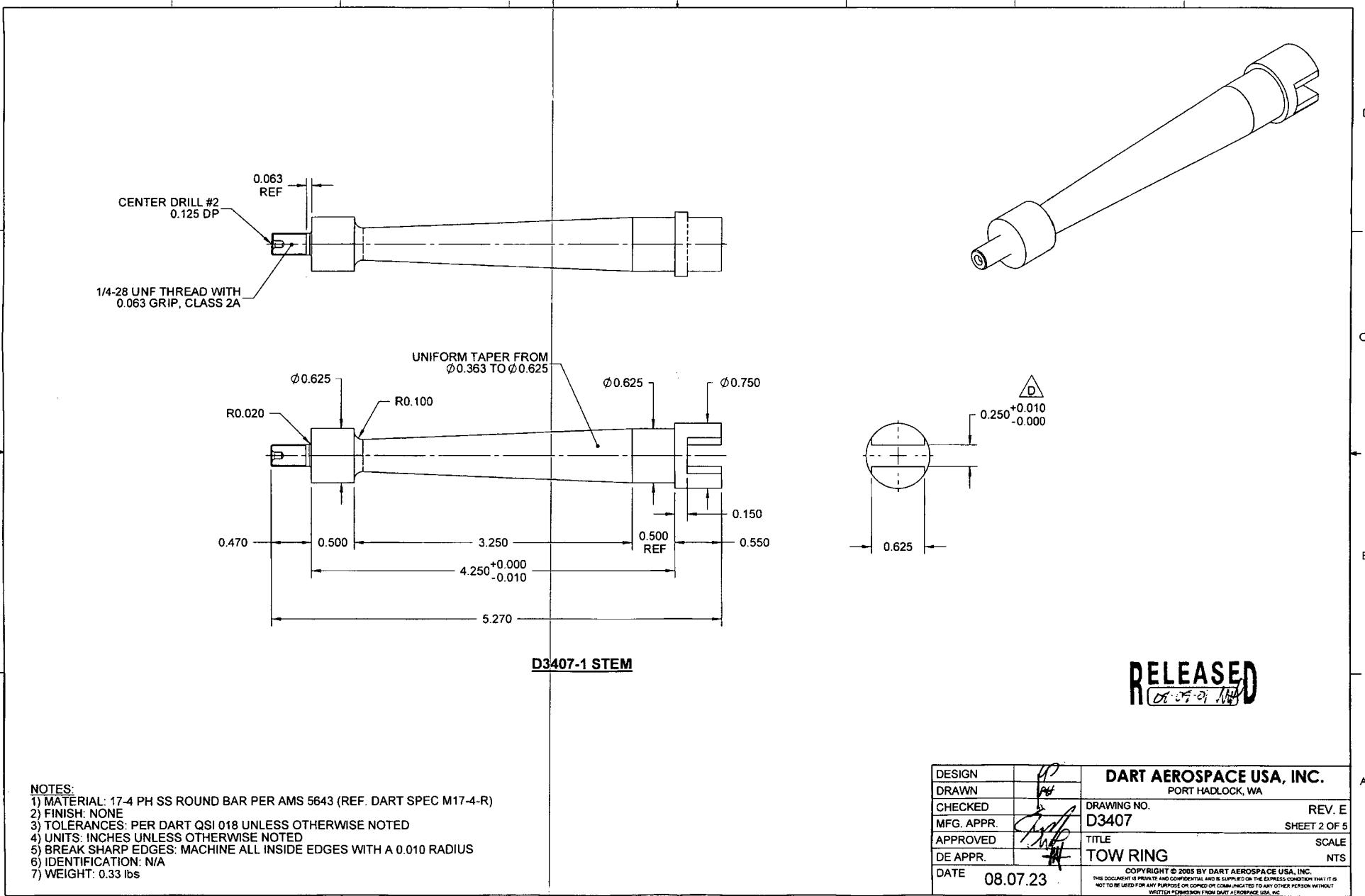
- A NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
 - 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
 - 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

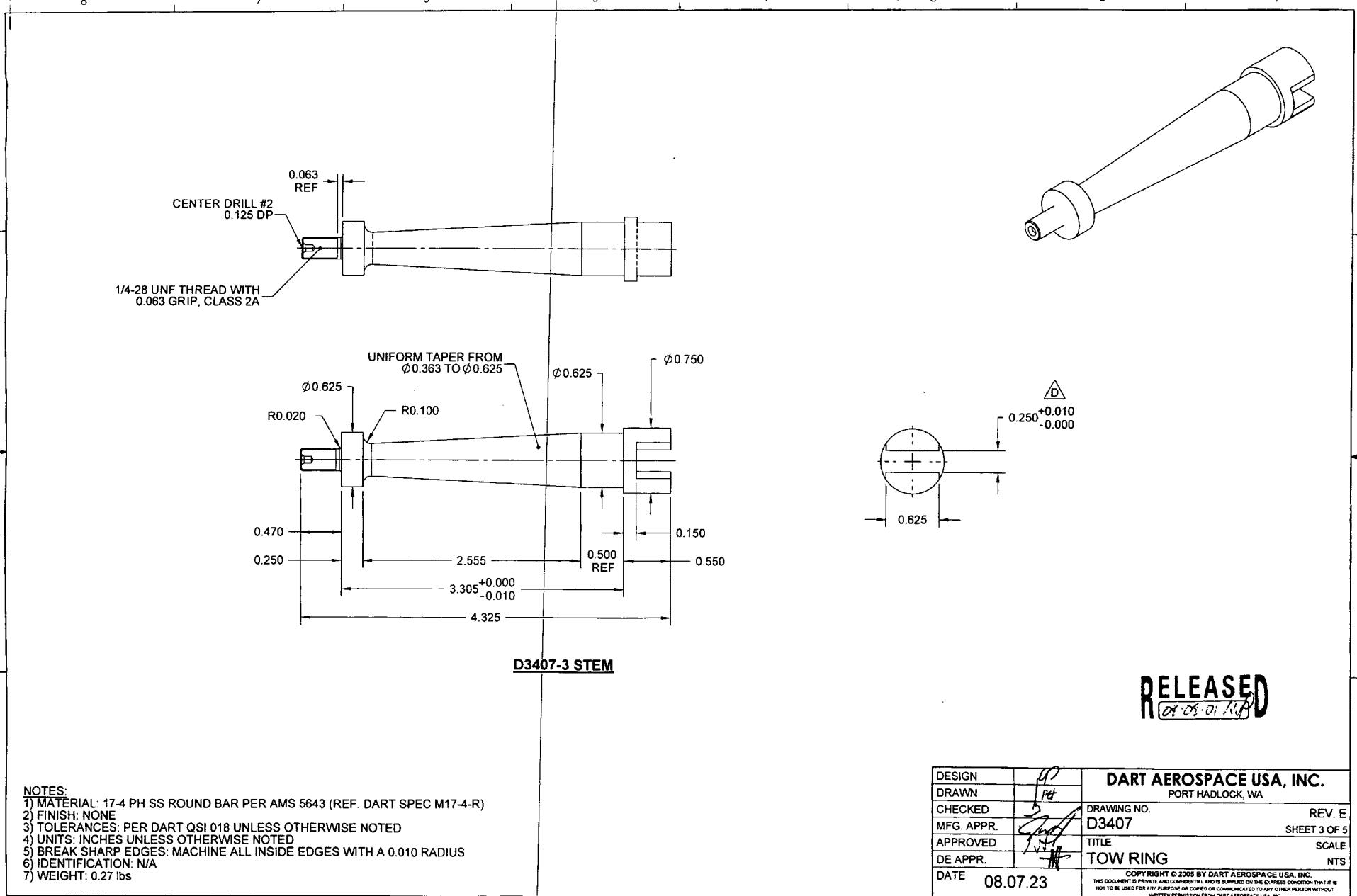
NO. 114488NP
14-03-10

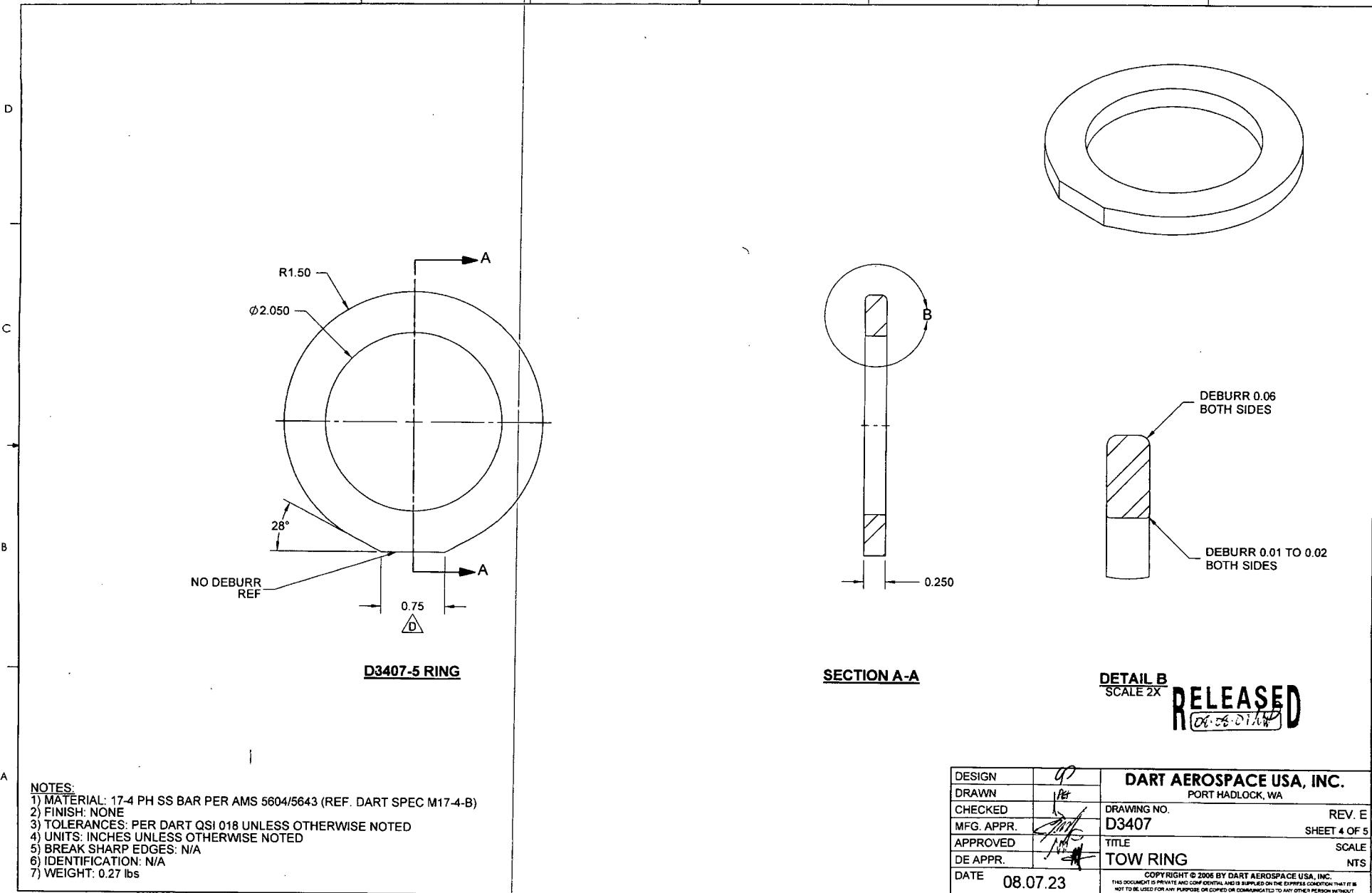
E

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C3-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN	14	DART AEROSPACE USA, INC.	
DRAWN	14	PORT HADLOCK, WA	
CHECKED	14	DRAWING NO. D3407	
MFG. APPR.	14	REV. E	
APPROVED	14	SHEET 1 OF 5	
DE APPR.	14	TITLE TOW RING	
DATE 08.07.23		SCALE NTS	

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SECTION A-A

**DETAIL B
SCALE 2X**

RELEASED
06-08-2014

DESIGN	<i>DP</i>	DART AEROSPACE USA, INC.
DRAWN	<i>per</i>	PORT HADLOCK, WA
CHECKED	<i>per</i>	DRAWING NO.
MFG. APPR.	<i>per</i>	REV. E
APPROVED	<i>per</i>	D3407
DE APPR.	<i>per</i>	SHEET 4 OF 5
DATE	08.07.23	TITLE
		SCALe
		NTS
		TOW RING
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8

7

6

5

4

3

2

1

D

D

C

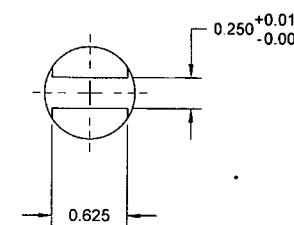
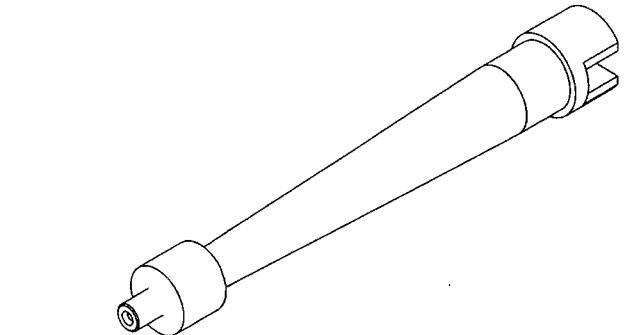
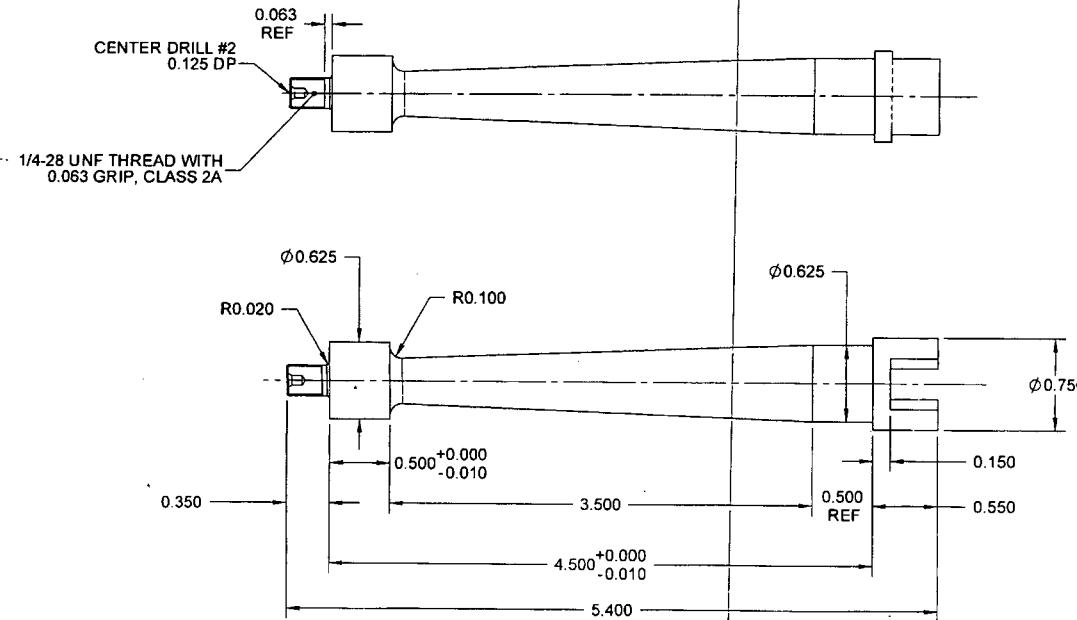
C

B

B

A

A



- NOTES:**
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.34 lbs

DESIGN	AJS	DART AEROSPACE USA, INC.	
DRAWN	PJ	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOW RING	NTS
DATE	08.07.23	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

RELEASED
08-07-01 MP

8 7 6 5 4 3 2 1

A

1